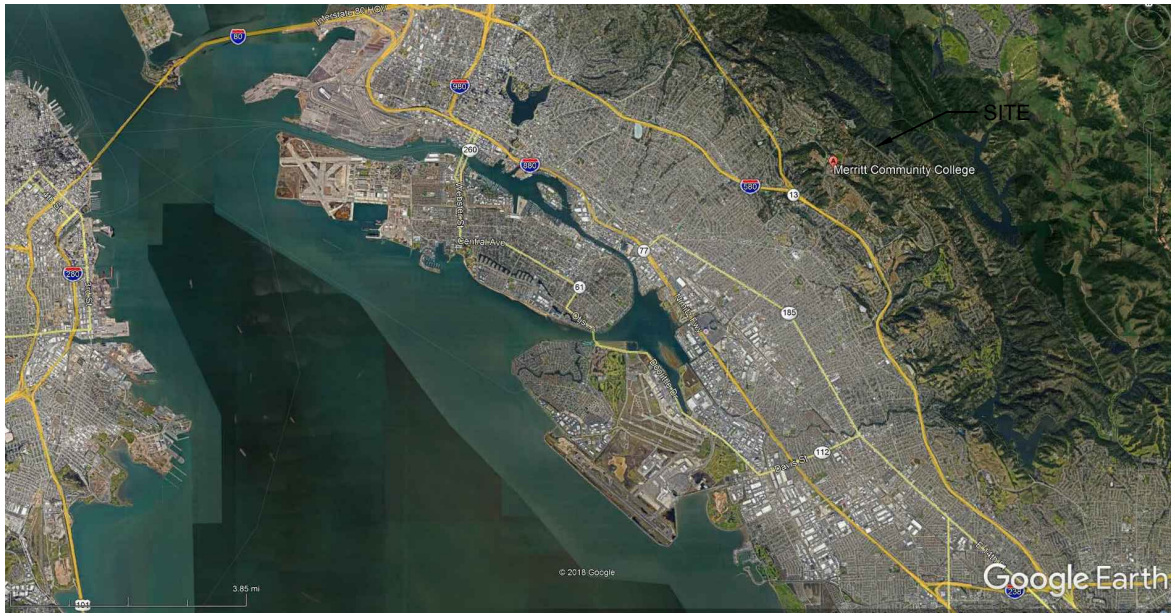
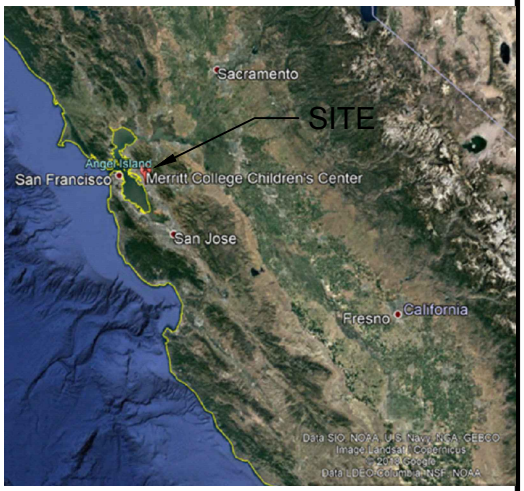
J:\CADD FILES\0034 Peralta\Merritt College\8.8.2019.Figures.dwg Drawn by:_____; Checked by:_____





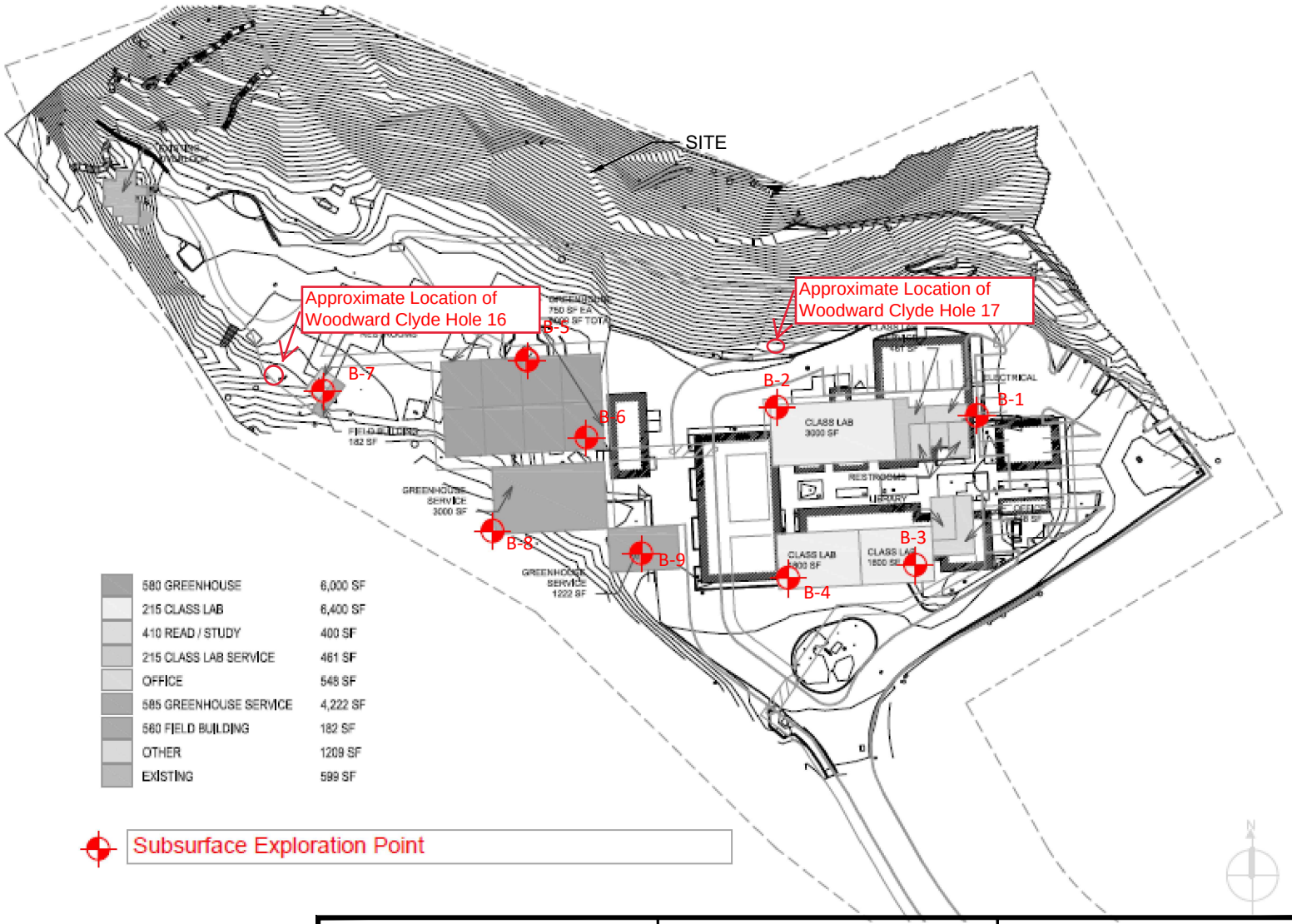
N

0 0.75 1.5 3
Approximate Scale in Miles

Source: Google Earth

SAFETY FIRST	CLIENT: Peralta Community College District	**SITE LOCATION**
terraphase engineering	PROJECT: MERRITT COLLEGE HORTICULTURE	
	PROJECT NUMBER: 0034.011.0001	**FIGURE 1**

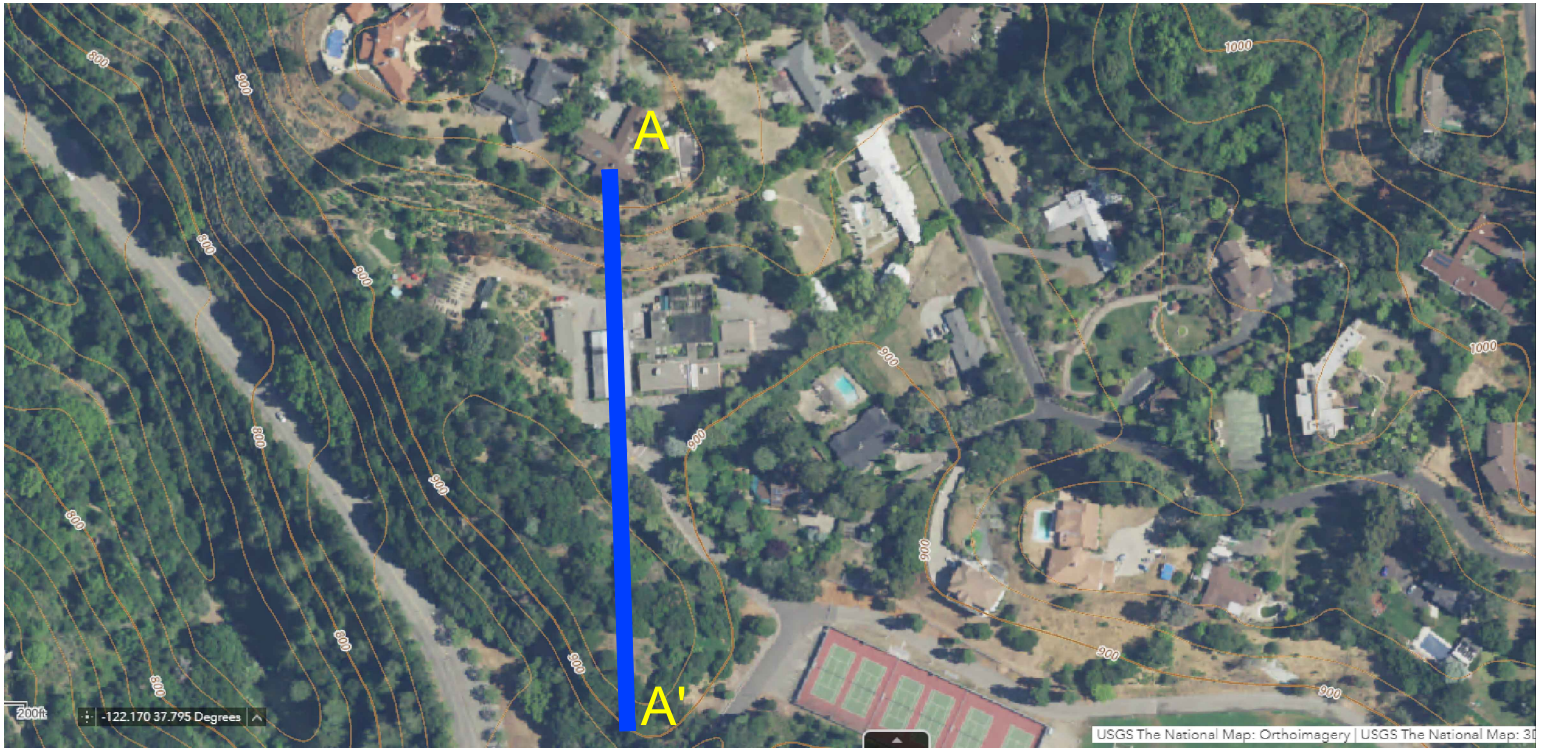
J:\CADD FILES\0034 Peralta\Merritt College\merritt hort.dwg Drawn by:_____; Checked by:_____

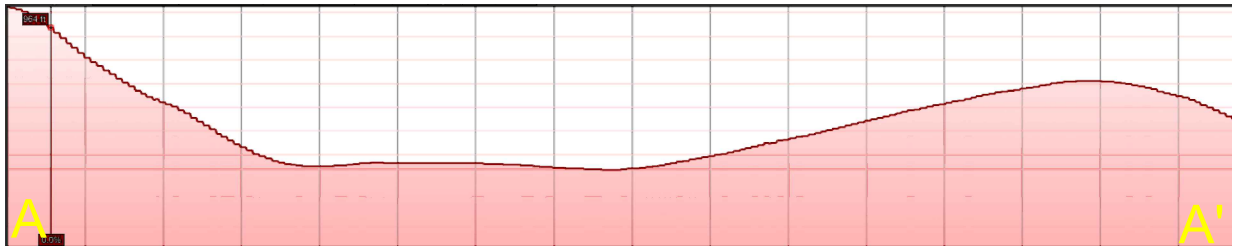


Source: IDA Structural Engineers

SAFETY FIRST	CLIENT: PERALTA COMMUNITY COLLEGE DISTR	**BORING LOCATIONS**
terraphase engineering	PROJECT: MERRITT COLLEGE HORTICULTURE	
	PROJECT NUMBER: 0034.011.0001	**Figure 2**

J:\CADD FILES\0034 Peralta\Merritt College\merritt hort.dwg Drawn by:_____; Checked by:_____





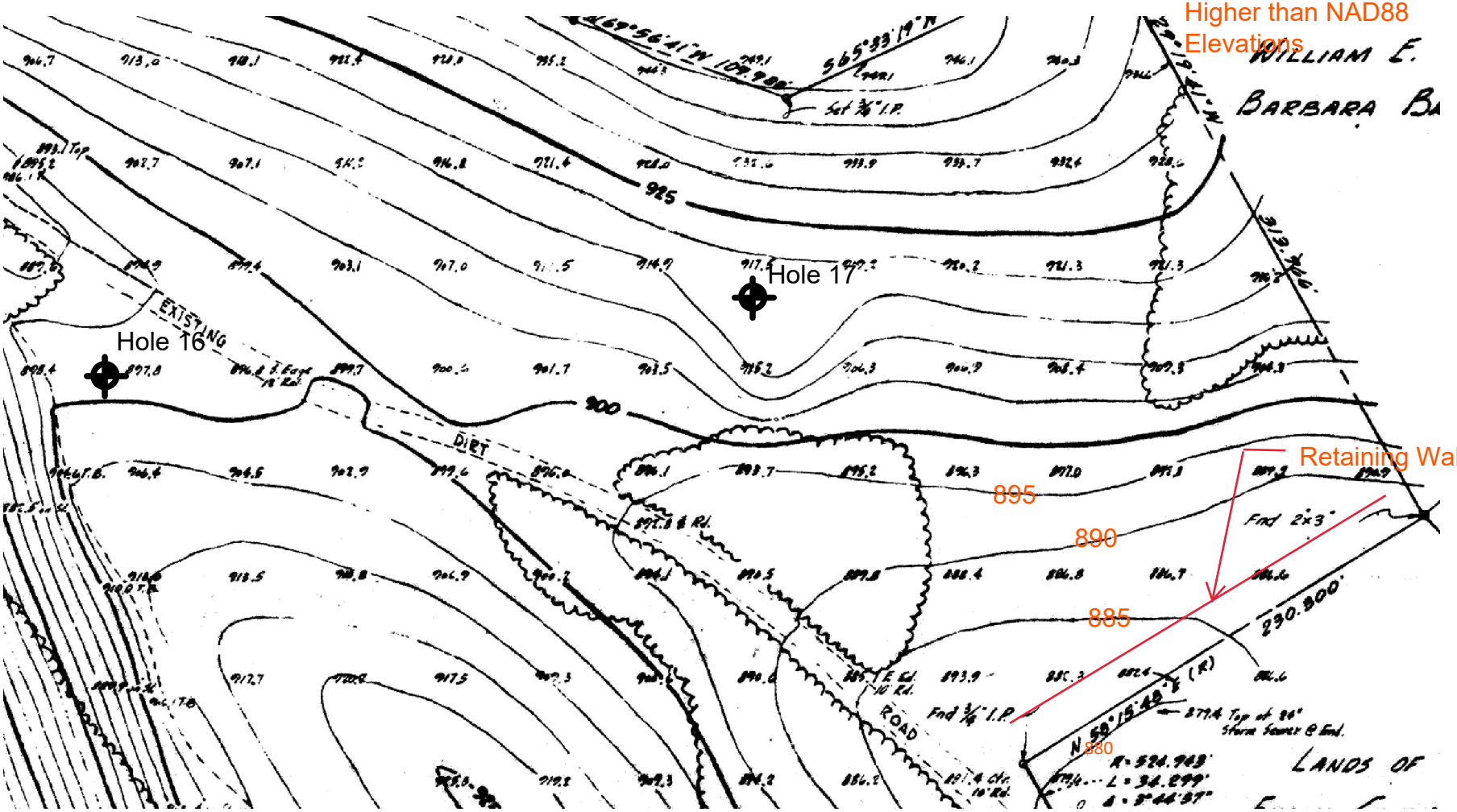
N

0 187.5 375 750

Approximate Scale in Feet

SAFETY FIRST	CLIENT: PERALTA COMMUNITY COLLEGE DISTR	**Regional Topography Map**
terraphase engineering	PROJECT: MERRITT COLLEGE HORTICULTURE	
	PROJECT NUMBER: 0034.011.0001	**Figure 3**

J:\CADD FILES\0034 Peralta\Merritt College\merritt hort.dwg Drawn by:_____; Checked by:_____



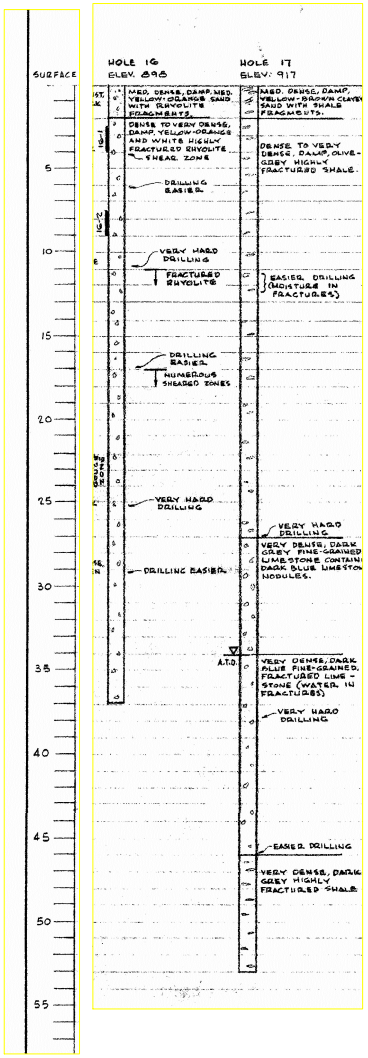
Source: Frahm, Mayke & Elder, September 1961

Hole 16
Woodward Clyde Borings

N

0 18.8 37.5 75.0
Approximate Scale in Feet

SAFETY FIRST	CLIENT: PERALTA COMMUNITY COLLEGE DISTR	**PRE-DEVELOPMENT TOPOGRAPHY**
terraphase engineering	PROJECT: MERRITT COLLEGE HORTICULTURE	
	PROJECT NUMBER: 0034.011.0001	**Figure 4**



SAMPLE 16-1

50 BLOWS/FT.
WC - 14
DD - 95
UN - 1310

SAMPLE 16-2

55 BLOWS/FT.
WC - 29
DD - 95
UN - 8800

Source: Woodward Clyde 1962

SAFETY FIRST	CLIENT: PERALTA COMMUNITY COLLEGE DISTR		**WOODWARD CLYDE BORING LOGS**
terraphase engineering	PROJECT: MERRITT COLLEGE HORTICULTURE		
	PROJECT NUMBER: 0035.005.0003	DATE: 4-20-20	**FIGURE 5**

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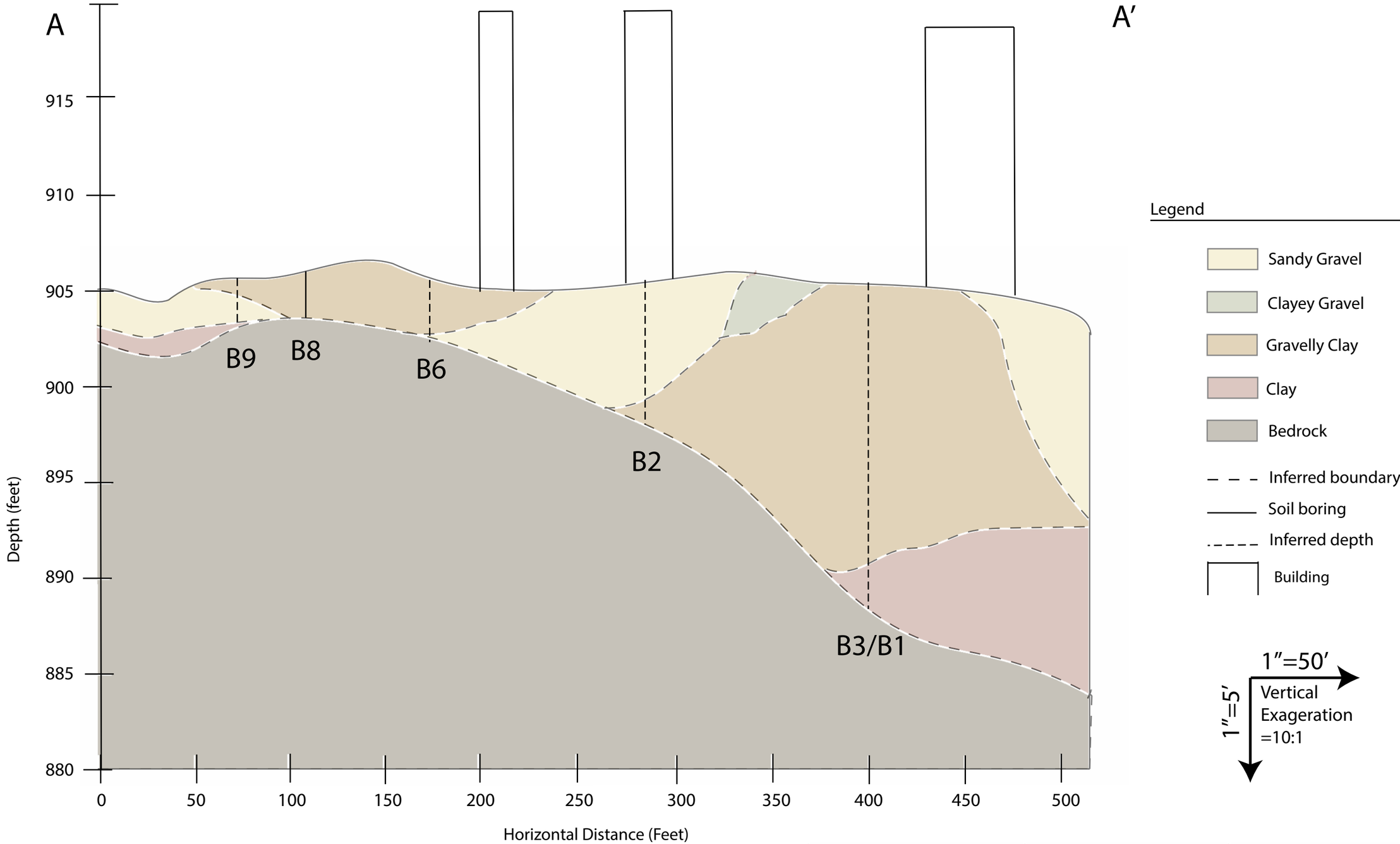
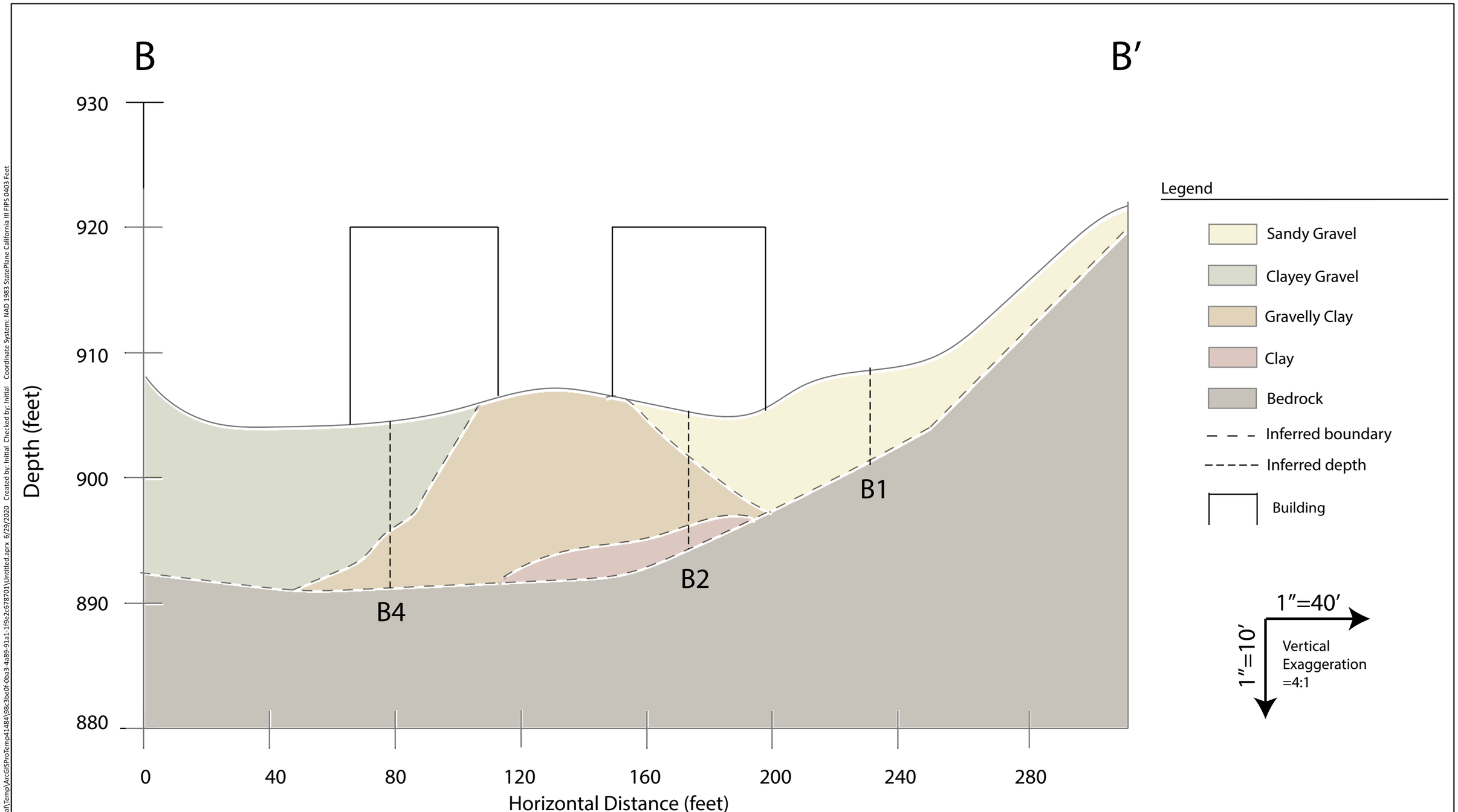


File: C:\Users\Resource\AppData\Local\Temp\ArcGISProTemp41484\98c3be0f-0ba3-4a89-91a1-1f9e2c678701\Untitled.aprx 6/29/2020 Created by: Initial Checked by: Initial Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet

SAFETY FIRST	CLIENT: PERALTA COMMUNITY COLLEGE DISTR	Cross Section A A'
terraphase engineering	PROJECT: MERRITT COLLEGE HORTICULTURE	
	PROJECT NUMBER: 0034.011.001	Figure 6



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SAFETY FIRST	CLIENT: PERALTA COMMUNITY COLLEGE DISTR	Cross Section B B′
terraphase engineering	PROJECT: MERRITT COLLEGE HORTICULTURE	
	PROJECT NUMBER: 0034.011.0001	Figure 7

National Flood Hazard Layer FIRMette

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

- SPECIAL FLOOD HAZARD AREAS
  - Without Base Flood Elevation (BFE) *Zone A, V, A99*
  - With BFE or Depth *Zone AE, AO, AH, VE, AR*
  - Regulatory Floodway
- OTHER AREAS OF FLOOD HAZARD
  - 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
  - Future Conditions 1% Annual Chance Flood Hazard *Zone X*
  - Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
  - Area with Flood Risk due to Levee *Zone D*
- OTHER AREAS
  - NO SCREEN Area of Minimal Flood Hazard *Zone X*
  - Effective LOMRs
  - Area of Undetermined Flood Hazard *Zone D*
- GENERAL STRUCTURES
  - Channel, Culvert, or Storm Sewer
  - Levee, Dike, or Floodwall
- OTHER FEATURES
  - 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
  - Coastal Transect
  - Base Flood Elevation Line (BFE)
  - Limit of Study
  - Jurisdiction Boundary
  - Coastal Transect Baseline
  - Profile Baseline
  - Hydrographic Feature
- MAP PANELS
  - Digital Data Available
  - No Digital Data Available
  - Unmapped

N

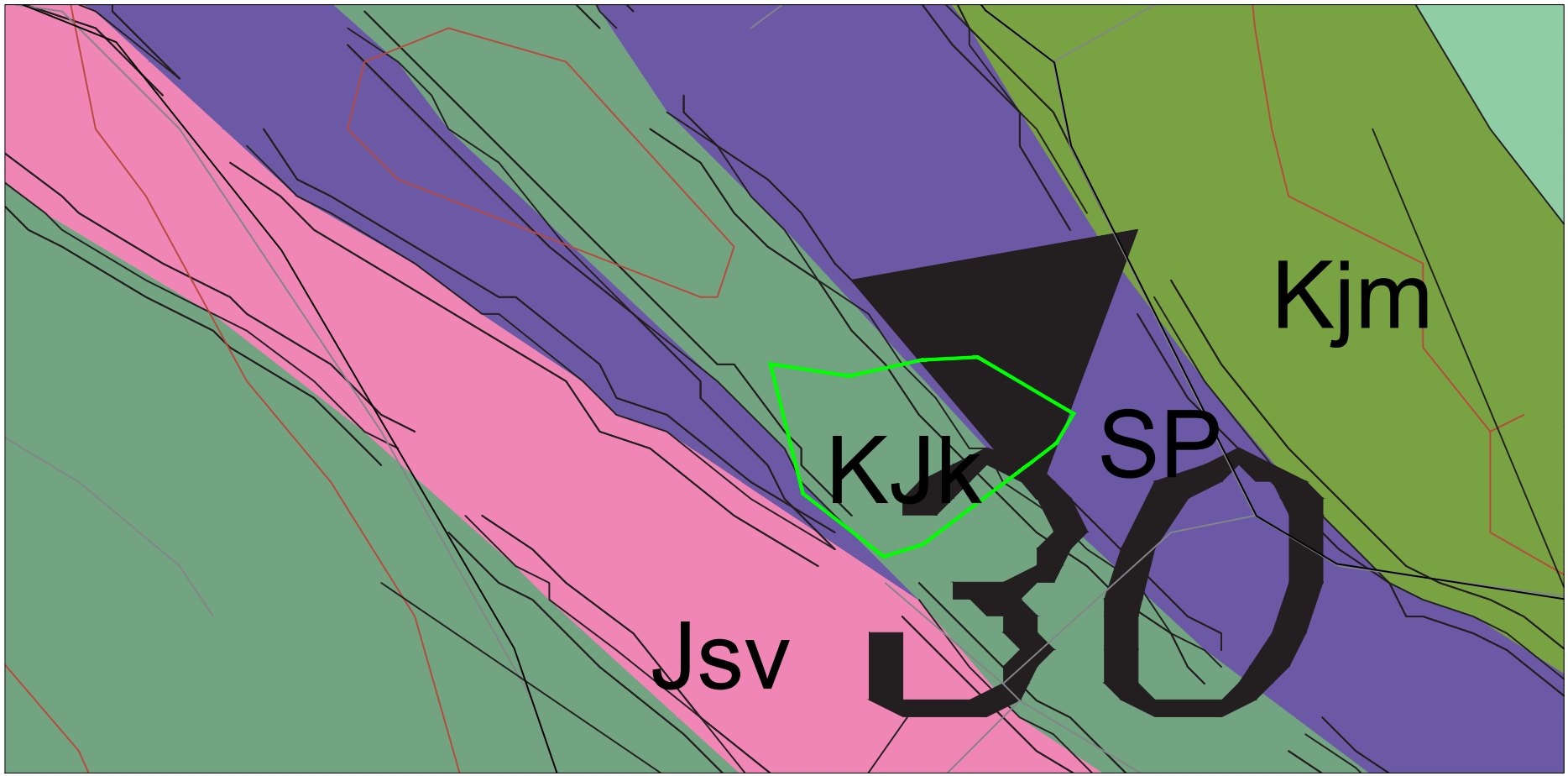
The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown compiles with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/12/2019 at 12:20:01 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

SAFETY FIRST	CLIENT: PERALTA COMMUNITY COLLEGE DIST	**FEMA 100-Year Flood Zones**
terraphase engineering	PROJECT: MERRITT COLLEGE HORTICULTURE	
	PROJECT NUMBER: 0034.011.0001	**FIGURE 8**



Jsv - Keratophyre and quartz keratophyre

SP - Serpentinite

Kjk - Knoxville Formation - sandstone and shale

Site Extent of Paved Area

Kjm - Joaquin Miller Formation

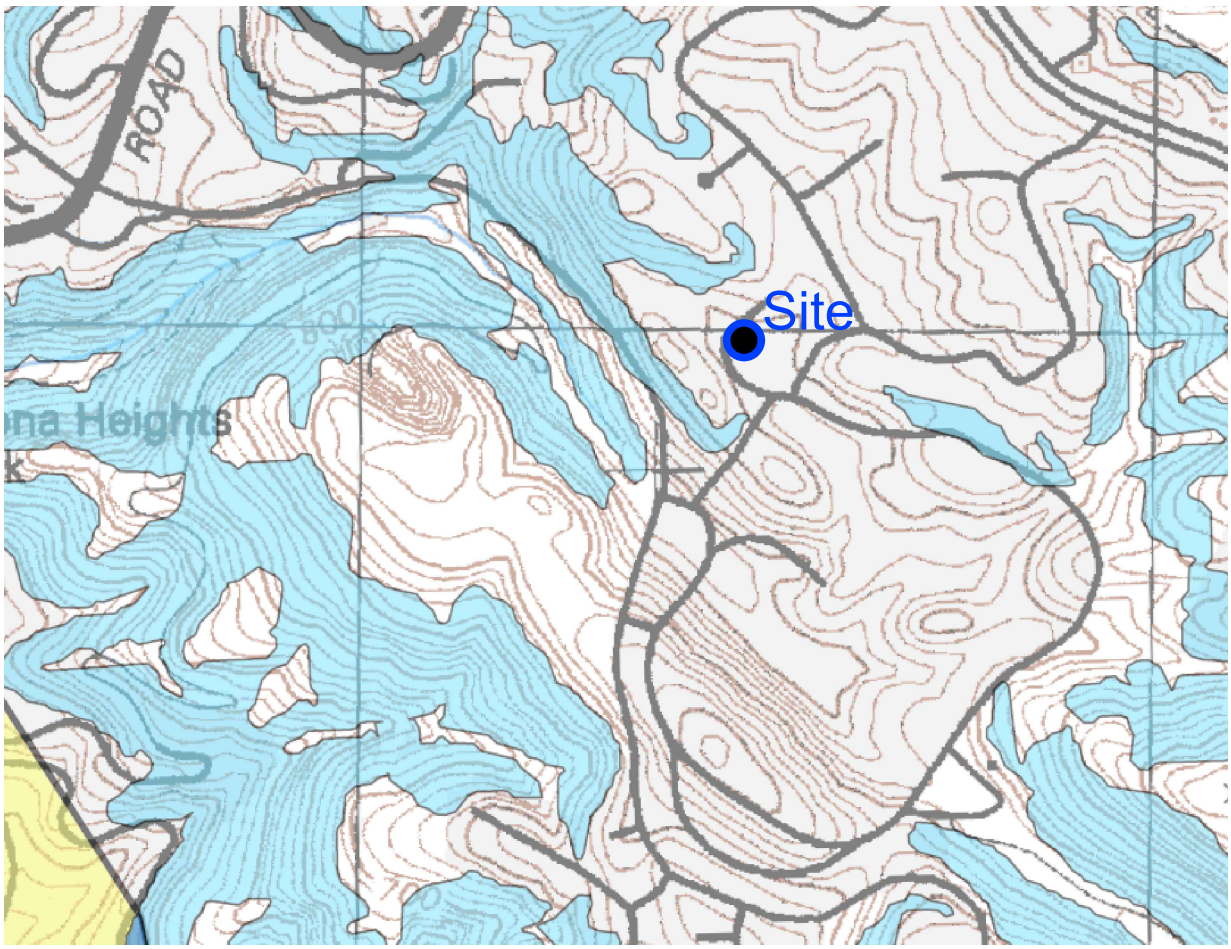
N

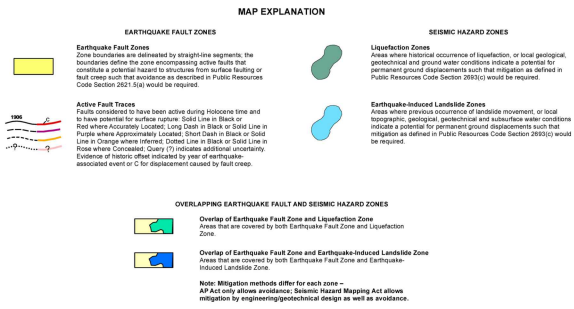
0 50 100 200

Approximate Scale in Feet

Source: Graymer 2000

SAFETY FIRST	CLIENT: PERALTA COMMUNITY COLLEGE DIST	GEOLOGICAL MAP
terraphase engineering	PROJECT: MERRITT COLLEGE HORTICULTURE	
	PROJECT NUMBER: 0034.011.0001	FIGURE 9





Source: California Geological Survey

SAFETY FIRST	CLIENT: PERALTA COMMUNITY COLLEGE DISTR	**SEISMIC HAZARD ZONE MAP**
terraphase engineering	PROJECT: HORTICULTURAL COMPLEX	
	PROJECT NUMBER: 0035.011.0001 / DATE: 9-4-19	**FIGURE 10**

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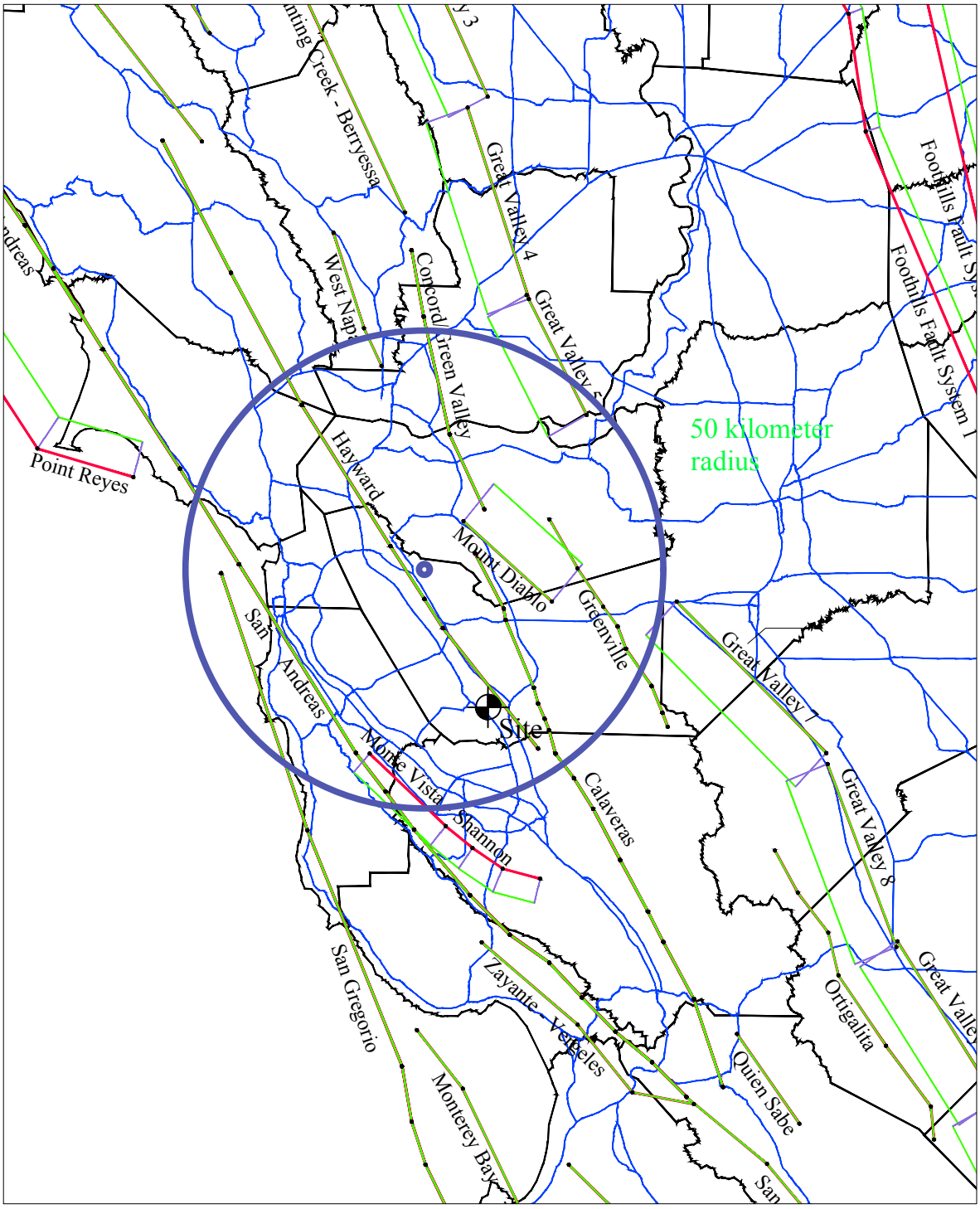
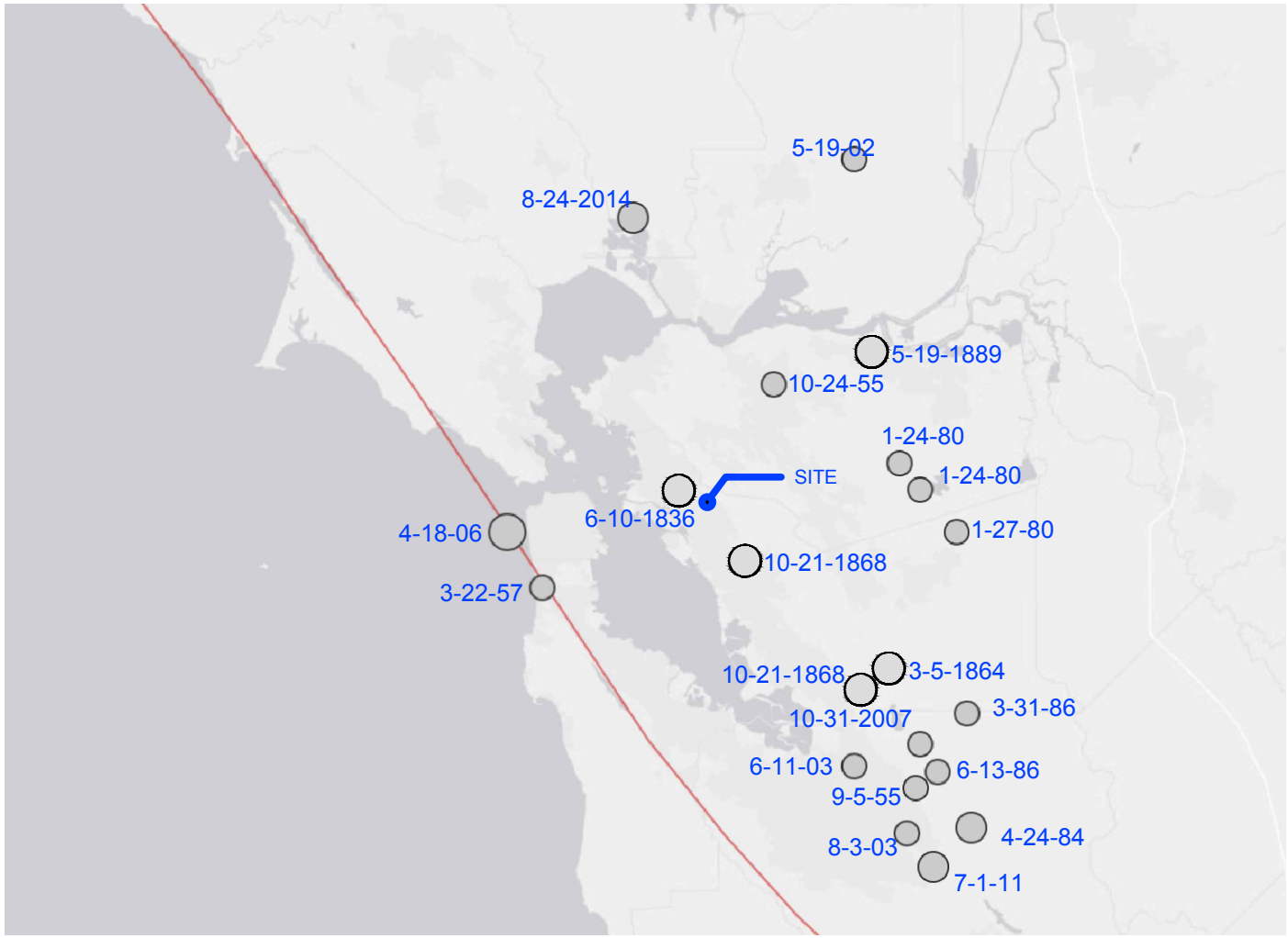


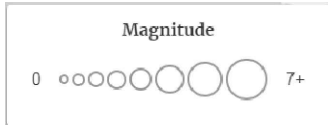
Source: Cao et al, 2003

SAFETY FIRST	CLIENT: Peralta Community College District	**EARTHQUAKE FAULT MAP**
terraphase engineering	PROJECT: MERRITT HORTICULTURAL COMPLEX	
	PROJECT NUMBER: 0034.011.0001	**FIGURE 11**

J:\CADD FILES\0034 Peralta\Merritt College\Figure 4 california fault map_recover.dwg Drawn by:_____; Checked by:_____



Source:
https://earthquake.usgs.gov/earthquakes/search/



SAFETY FIRST	CLIENT: Peralta Community College District	**Historical Earthquakes**
terraphase engineering	PROJECT: Merritt Horticultural Complex	
	PROJECT NUMBER: 0034.011.0001	**Figure 12**